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Newsletter #153 January 27th 2021

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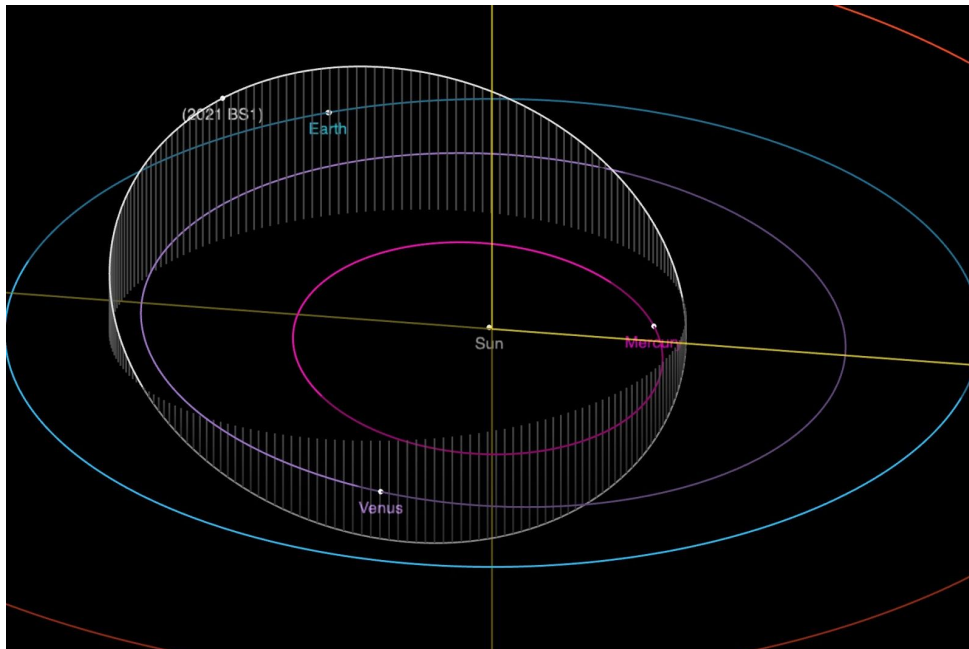
News from Fritz (Ari Crellin-Quick)

The Fritz team has implemented a major access control infrastructure refactor, with which we are replacing the existing permissions control implementation. We have added browser notifications, and the ability to mention a user in a comment ("@username" in a comment) which will trigger a browser notification for the mentioned user with a link to the source page in question. We are finishing up a new favorite sources feature, and have greatly improved the mobile experience.

News from working groups

Solar System:

"In addition to discovering a slew of fast-moving NEOs, we discovered an Atira object with an aphelion distance of 0.8 au, passing just outside the orbit of Venus as seen in the attached orbit diagram. The ~1 km asteroid was detected in the morning Twilight survey with a Solar-centric distance of 50 degrees at an ecliptic latitude of 26 degrees owing to the recent adjustment of the Twilight survey fields to cover the sky closer to the Sun. It seems that January is a lucky month for inner-Earth/inner-Venus asteroids! This is our fifth inner-Earth object/inner-Venus object discovery with ZTF, out of the ~25 known inner-Earth/inner-Venus objects.



Last week we also uncovered a previously missed outburst of comet 141P/Machholz that happened on or about 2021 Jan 1. The 2-mag event appears to have developed over an extended period of time (a few days), rather than the more typical hour-time scales. If confirmed, this is the third comet (of 28) that ZTF has observed such prolonged brightening. The outburst has been announced in CBET 4924.”

AGNs and TDEs:

”TDE/AGN group has been busy writing NuSTAR proposals (deadline is 29/Jan). ”

Cosmology with SNe Ia:

“We decided after the last WG meeting that the new group lead is Mickael Rigault (Lyon) and co-leads are Joel Johansson (Stockholm) and Mat Smith (Lyon). Additionally we’re working towards getting spectroscopic follow-up resources to follow up SNe to ~ 19.5 mag.”

Physics of supernovae and relativistic explosions:

“Kishalay gave an overview of the Gattini IR project. This survey monitors 15,000 square degrees every 2 nights down to a moderate depth in J band. This survey can detect very nearby SNe, but its true domain are accreting young stars, variable stars and other variable sources in the Milky Way. Several papers are already published, and more are in prep. Erik started working on a singular Type Ibn supernova. This event started as a stripped-envelope SN but evolved into a Ibn SN later on. That was never observed before! Currently, it is still unclear which type of SESN it was. A Ib/c SN, or maybe even a Ia? Weizmann is looking for you to join in catching core-collapse SNe, Ia’s or any other type transient after they emitted their first photon. If you are interested in that, contact Rachel (rachel.bruch@weizmann.ac.il).“

Galactic and M31 Science:

“We are starting to look into the most recent data which is now uploaded to Kowalski. Work is also in progress to add features to the Fritz marshall for variable star analysis, and a beta version of these features will be tested soon. The first paper describing the deepdrilling observations in the first year of ZTF has been submitted by Thomas Kupfer.”

The papers corner:

Please keep us updated about your submitted/published papers, they will be advertised here. Please send Joy Painter, the Astronomy Librarian at Caltech, links to papers as soon as they are published. They will be kept track of [here](#).

Reminders:

- PublicAlerts: There is a [link](#) to the alerts archive on the [website](#)!

- Please help us keep track of all the available softwares! A preliminary list is available on the [twiki](#). Let us know if you are building a software which you think could benefit (or be relevant to) a large portion of the collaboration.

- **ZTF general slack channel**: Please join through this [link](#)!

- If you want to get access to the **ZTF data** via the IRSA interface, please request data access to the communication coordinators: ztf.communication.coordinators@gmail.com

- The **ZTF Twitter account** is now active! <https://twitter.com/ztfsurvey> Re-tweet @ztfsurvey!

- To use the **url shortener**(e.g. during telecons, talks, in emails), navigate to <http://zwicky.tf/shorten> (username: ztf password:16chips) and type in the URL you want shortened.

- The **Wiki page** is active! Check it out at <http://zwicky.tf/wiki>. To request access, please email us at ZTF.communication.coordinators@gmail.com

"In the beginning the Universe was created. This has made a lot of people very angry and been widely regarded as a bad move."

- Douglas Adams

Have a good and productive week!!

Erik and Igor